Ensuring Universal Access for the Global Information Flow: Responding to the Demands of Scholarship in the Digital Age

Daniel Gelaw Alemneh & Samantha Kelly Hastings
University of North Texas

ALISE 2005 Annual Conference
January 11-14, 2005 Boston, Massachusetts
Introduction

- We have seen a tremendous increase in use of computers in all aspects of human life.
- The education sector is no exception to this phenomenon.
- Powered by development of digital technologies and fuelled by the convenience of quick and easy web based access, research in almost every discipline is becoming more data-intensive.
New Direction for Scholarship

As digital technology has gained greater status in teaching/learning activities, the needs, expectations, and relationships of all stakeholders (faculties, students, librarians, administrators, etc.) have changed significantly.
Emerging Trends

- A larger convergence ICT and related technologies
  - As a facilitator/means and container/form of existence of digital resources

- Development of open source resources
  - Open standards, Open software, portals, etc.

- Cross discipline collaborations
  - Interdisciplinary programs

- Increased enrollments
  - Distance, onsite, hybrid
Trends and Challenges

Higher education institution continue to respond to the challenges and opportunities of the new environment by:

- Expanding their technology infrastructure and Internet capabilities in light of the ever increasing access and usage rates.
- Building tools that gather a variety of resources into a single, ‘one stop’ portal.
- Empowering users with access to branded information resources and communication tools.
- Increasing their inter and intra collaboration and partnership.
Globalization

Globalization is creating a world that is increasingly interconnected, in which national boundaries are less important.

We are living in a global knowledge economy where power and wealth are increasingly measured by the amount of access one has to information and by one’s ability to obtain and use that information effectively.

The distinction between developed and non-developed countries has already become a distinction between countries with extensive IT infrastructure and countries with low level of IT penetration, networked nations and isolated ones.
Globalization

“…The challenge is to think the coming of the digital technology as revolutionary. But to think it as not just a technology, but a whole social transformation, and to pay attention to its uneven development, and to local cultural specificities.” (McKenzie Wark)
The African Case
ICT in African Higher Education

- In the current global knowledge economy, development of a national information infrastructure is part and parcel of the national development program.

- Academic institutions in Africa are core institutions that link nations to the emerging global forces of the knowledge domain.

- While academic institutions in the developed world are grappling to handle the challenges and possibilities presented by new technologies, little infrastructure available to support full-fledged IT based education system in most parts of Africa.
The spread of the Internet in African higher education cannot be considered in isolation from the development of ICT on the continent as a whole.

Many reports say that application of electronic networking in most African countries is replete with confusions and lack of coordination.

For instance, if we take telephone density that most researcher use to measure ICT development, we have less than 3% in Africa (while global average is about 12%).
# Internet Users and Population Statistics for Africa

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total for Africa</strong></td>
<td>893,197,200</td>
<td>12,937,100</td>
<td>186.6 %</td>
<td>1.4 %</td>
<td>1.6 %</td>
</tr>
<tr>
<td><strong>Rest of the World</strong></td>
<td>5,496,950,287</td>
<td>799,994,492</td>
<td>124.4 %</td>
<td>14.6 %</td>
<td>98.4 %</td>
</tr>
<tr>
<td><strong>WORLD TOTAL</strong></td>
<td>6,390,147,487</td>
<td>812,931,592</td>
<td>125.2 %</td>
<td>12.7 %</td>
<td>100 %</td>
</tr>
</tbody>
</table>

Even though little use of IT has been made for academic purposes, ICT4D is gaining wider acceptance.

- **DISD** (formerly PADIS) (ECA’s The Pan African Development Information System)
  - CABECA: Capacity Building for Electronic Communications in African
- **AISI** (The African Information Society Initiatives)
- **ARN** (The African Academic Research Network)
- Multitude of other national and regional projects, (such as African Virtual University (AVU) promote ICT use in Africa.
Challenges of African Higher Education

Lack of funding

- The number of students enrolled is often increasing faster than their capacity to finance this growth.
- Governments pay little attention to the need for higher education. Resources are swallowed up by pressing concerns over food security, defense, health care, etc.

Poor IT infrastructure

- Most institutions in Africa are not yet full users of local and wide area networks.
Challenges of African …

- **Absence of Collaboration and Networking**
  - Often hardly know what their colleagues at other African universities are doing
  - Lack the capability to disseminate their own research results

- **Inconsistent and prohibitive Policies**
  - Restrictive regulations

- **Lack of skilled human resources**
  - Brain drain
Summary

Creating digital opportunity through universal access means:

Accessibility
- Increase in access to a broader range of heterogeneous, previously unavailable resources.

Efficiency
- Facilitate resource sharing and resource administrations

Empowerment
- Increase in instructional effectiveness and research productivity

Competitive advantages
- Attracting quality students and faculties
Concluding Thoughts

- **In order to bridge the existing digital divide, a series of strategic actions and reforms needs to be tackled:**
  - Reconciliation of the relationship between government and university.
    - This should be accompanied by the commitment of more resources, provision of academic freedom and more autonomy to universities, and good working facilities, not only to encourage those scholars abroad to return but also to discourage those at home from fleeing.
  - Commitment to working collaboratively
    - (nationally, regionally & internationally).
In addition, the target of current African higher education reform should be to establish an institutional framework that synchronize both their own indigenous socioeconomic requirements and of course, the global labor market demands.

By doing so, African researchers can participate both in the use and generation of knowledge on the Internet and of course, be able to respond to the demands of scholarship in the digital age!
Thank You!

Questions?

Dalemneh@library.unt.edu